#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

## WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-024447 Address: 333 Burma Road **Date Inspected:** 08-May-2011

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes Mr. Gang Wei No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** Orthotropic Box Girder (OBG)

#### **Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Shailesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Chang xing Island in Shanghai, China. QA observed and/or found the following:

This QA Inspector observed the following work in progress:

**OBG** Trial Assembly

**SMAW Process:** 

This QA Inspector observed ZPMC qualified welding personnel identified as 058087 Perform Shielded Metal Arc Welding (SMAW) on OBG Segment 14 East. Joint identified as SEG3019Q-1-051. ZPMC QC Identified as Zhu Yuan Yuan. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2214-Tc-U4b-FCM-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 501946 Perform Shielded Metal Arc Welding (SMAW) on OBG Segment 14 East. Joint identified as DP3160-001-219. ZPMC QC Identified as Zhu Yuan Yuan. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2214-Tc-U4b-FCM-1.

#### FCAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 067877 Perform Flux Core Arc

## WELDING INSPECTION REPORT

(Continued Page 2 of 3)

Welding (FCAW) on OBG Segment 14 East. Joint identified as SEG3019W-082, 046. ZPMC QC Identified as Zhu Yuan Yuan. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2233-ESAB and WPS-B-T-2231-ESAB.

This QA Inspector observed ZPMC qualified welding personnel identified as 051356 Perform Flux Core Arc Welding (FCAW) on OBG Segment 14 East. Joint identified as SEG3019K-354, 351, 353. ZPMC QC Identified as Zhu Yuan Yuan. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2231-ESAB.

#### Repair welding, SMAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 037723 Perform Shielded Metal Arc Welding (SMAW) on OBG Segment 14 East. Joint identified as SEG3019AP-037. ZPMC QC Identified as Zhu Yuan Yuan with Critical welding repair report CWR-B-CWR2966. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-345-SMAW-4G (4F)-FCM-Repair-1.

## Repair welding, SMAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 066733 Perform Shielded Metal Arc Welding (SMAW) on OBG Segment 14 East Deck panel to Deck panel. Joint identified as SEG3019\*-004. ZPMC QC Identified as Zhu Yuan Yuan with Temporary welding repair report WRR-B-WR20948. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-345-SMAW-1G (1F)-FCM-Repair-1. For more information see below attached picture number 1.

#### Repair welding, SMAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 054013 Perform Shielded Metal Arc Welding (SMAW) on OBG Segment 14 East. Joint identified as SEG3019E-2-184, 192. ZPMC QC Identified as Zhu Yuan Yuan with Temporary welding repair report WRR-B-WR20932. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-345-SMAW-3G (3F)-FCM-Repair-1. For more information see below attached picture number 2.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.





# WELDING INSPECTION REPORT

(Continued Page 3 of 3)

## **Summary of Conversations:**

Only general conversation was held between QA and QC concerning this project.

### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang: 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Gaikwad,Shailesh	Quality Assurance Inspector
Reviewed By:	Patterson,Rodney	QA Reviewer